

MONTHLY WEATHER REVIEW.

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BOARD OF EDITORS { Mr. Horace E. Smith, Chief Clerk of Weather Bureau,
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Mr. Edward B. Garriott, in charge of Review Room.

INTRODUCTION.

This REVIEW is based on reports for March, 1892, from 2,734 regular and voluntary observers. These reports are classified as follows: 158 reports from Weather Bureau stations; 51 reports from United States Army post surgeons; 1,755 monthly reports from state weather service and voluntary observers; 31 reports from Canadian stations; 217 reports through the Cen-

tral Pacific Railway Company; 522 marine reports through the co-operation of the Hydrographic Office, Navy Department; marine reports through the "New York Herald Weather Service;" monthly reports from local weather services established in all states and territories, except Idaho, and international simultaneous observations. Trustworthy newspaper extracts and special reports have also been used.

CHARACTERISTICS OF THE WEATHER FOR MARCH, 1892.

The weather was unusually cool in the east-central, southern, and southwestern states. From the Pacific coast north of the 40th parallel to North Dakota and thence over the northern lake region and Saint Lawrence Valley the month was warmer than usual. On the 11th and 12th cold and frost injured vegetation in the Gulf and south Atlantic states. From the 17th to 19th low temperature and frost seriously injured crops and early vegetation from the southeastern slope of the Rocky Mountains over the Gulf and south Atlantic states and the northern half of the Florida Peninsula. The close of the month was marked by cool weather and frost in parts of Arizona and eastern and southern California.

PRECIPITATION.

The monthly precipitation was irregularly distributed. It was largely in excess of the normal in the interior of the east Gulf states and in Kansas, where, in localities, about double the usual amount of rain fell. There was also a marked excess in Nova Scotia and on the extreme north Pacific coast. The greatest deficiency was noted in Louisiana and Arkansas, eastern Tennessee, central Indiana, and at Portland, Oregon, where about one-half of the normal amount of precipitation was reported.

The monthly snowfall was greater than usual along the New England coast. In central and southwestern Tennessee the heaviest snowstorm on record occurred on the 16th and 17th, the depth of snowfall varying from 7 to 25 inches. This snow was beneficial, as it protected wheat, oats, and clover from the severe cold of that period. Over a great part of the Ohio Valley the snowfall was insufficient to afford protection to grain.

During the months of January, February, and March the precipitation continued in excess of the normal amount generally in the middle Atlantic and east Gulf states, the Missouri Valley, on the northeast slope of the Rocky Mountains, and over the southern plateau region. The precipitation continued deficient during that period at Key West, Fla., in the west Gulf states, the Ohio Valley and Tennessee, the lower lake region, and along the middle and north Pacific coasts.

STORMS.

Severe gales prevailed from Maine to North Carolina from the 1st to 4th, with heavy snow in New York and New England. On the 8th and 9th a heavy windstorm extended from the Dakotas to the lower Missouri valley and the western lake region, and reached the Atlantic coast on the 10th, with local storms from the District of Columbia and Maryland to New England on the 11th. From the 15th to 17th a severe sleet and snow storm prevailed in the Southwest. This storm extended over the middle Atlantic and New England states by the 18th. On the 26th severe local storms occurred from Kansas over the Ohio Valley. On the 31st heavy gales and destructive local storms occurred from Nebraska and Iowa to central Texas. Tornadoes were reported at points in south-central Nebraska, central Kansas, and central Texas. The loss of human life by tornadoes is placed at 36, 34 of which number were killed in Kansas and 2 in Texas, and the estimated value of property destroyed in Kansas was \$150,000, and in Texas \$12,000.

NAVIGATION.

Navigation was partially resumed on Lakes Ontario, Erie, and Michigan, and the upper Mississippi river.

ATMOSPHERIC PRESSURE (expressed in inches and hundredths).

The distribution of mean atmospheric pressure for March, 1892, as determined from observations taken daily at 8 a. m. and 8 p. m. (75th meridian time), is shown on Chart II by isobars.

The normal pressure for March is highest in the Great Salt Lake region, Utah, where it is 30.10, and is lowest over New York, New England, and on the extreme north Pacific coast, where it is below 30.00.

In March the pressure usually decreases over the United States and Canada, the decrease being most marked along the New England coast, over the Canadian Maritime Provinces, and in the Saskatchewan Valley, where it is more than .10.

In March, 1892, the mean pressure was highest in the Red River of the North Valley, where it was above 30.15, and the mean readings were above 30.10 over the east Gulf states, Georgia, and Florida. The mean pressure was lowest at sta-